

REMARKS

In a final Office Action dated March 23, 2007, the Examiner rejects claims 1-80 (All pending claims). In response to the Office Action, Applicant amends claims 1 and 30; amends the specification; and respectfully traverses the rejection. The amendments have been made to clarify the invention.

The Examiner has rejected claim 1 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Number 5,284,492 issued to Dubin (Dubin) in view of U.S. Patent Number 5,743,922 issued to Peter-Hoblyn (Peter). In order to maintain a rejection the Examiner has the burden of providing evidence of prima facie obviousness. See MPEP §2143. See also In Re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In order to prove prima facie obviousness, the Examiner must provide evidence in the prior art of a motivation to combine or modify a reference, a reasonable expectation of success, and a teaching of each and every claimed element. *Id.* The Examiner has failed to provide a teaching that teaches each and every limitation of claim 1 and has not provided a proper motivation to combine the references.

Specifically, Applicants contend that the Examiner has providing a teaching of aging as recited in the claims. Applicants have amended claim 1 to recite that the composition must be passed through a shear pump after the aging process takes place. Neither Dubin or Peter teaches this. Specifically, Dubin does not teach a process for making an emulsion at all. Thus, there is no teaching of aging a fuel prior to passing the emulsion through a shear pump. Second, Peter does not teach a

method where the composition is aged prior to being passed through a shear pump. Instead, Peter teaches passing the fuel from a fuel tank to an emulsion pump prior to passing the fuel to the engine. Thus, the aging is not in the manufacturing process but is instead in the use when the fuel is being applied to the engine for consumption. Thus, Peter also does not teach the aging step recited or passing the aged emulsion through a shear pump in response to the aging. For these reasons, Applicants respectfully set forth again in light of the above comments.

Amended claim 1 recites a method that includes the step of “aging a second composition to produce an aged composition.” Neither Dubin nor Peter teaches this step in making an emulsion composition. Dubin teaches a fuel including an emulsion. However, Dubin only teaches the composition of the fuel and does not teach the method of making an emulsion. Furthermore, there is no mention anywhere in Dubin of aging the composition.

Furthermore, Peter does not teach the aging of a composition in the process of making an emulsion. The Examiner cites Figure 1 as teaching aging of the composition. Applicant has reviewed figure 1 and Peters in their entirety and can find no mention of aging or a description of an aging process. In fact Peter teaches against aging as it may allow components to settle. See Col. 4, lines 4-15. The only discussion of Figure 1 is from Col. 7, line 44 –Col. 8, line 10. This section only mentions that the one tank is used to hold the fuel and the other the emulsion prior to combustion. Thus, Peters provides no teaching of aging a composition.

For these reasons, Applicants respectfully request that the rejection be removed and amended claim 1 be allowed.

Furthermore, even if Peter teaches aging, neither reference teaches aging the emulsion or passing the emulsion through a shear pump in response to the aging. As stated above, Dubin does not teach the production of the emulsion and does not mention aging or applying the emulsion to a shear pump. Thus, Dubin does not teach the passing of the emulsion to a shear pump after aging the material. Peter on the other hand may teach aging. However, Peter does not teach aging the emulsion then passing the material through a shear pump. Instead, Peter teaches passing the emulsion to an emulsion tank prior to placing the emulsion in the fuel tank. This is different aging as the aged emulsion is not then subjected to a shear pump as recited in amended claim 1. Thus, the rejection of claim 1 must be removed.

Furthermore, the Examiner has provided no motivation to combine the references. The Examiner merely asserts that Peter suggests aging. However, this is not a suggestion of aging a mixture prior to the shearing the emulsion. Applicant challenges this statement and respectfully requests the Examiner provide evidence of such statement and provide Applicant with an opportunity to respond.

Furthermore, this is only a suggestion of aging and does not provide motivation to combine the references. A motivation must provide an Applicant for adding the missing step or structure to an invention. Here the mere teaching of aging does not provide a motivation to combine the aging step with another

process. The Examiner must give a reason for such combination. In the present action, the Examiner has no reason that Peter is combined with Dubin which does not teach a method of making an emulsification. If the Examiner wishes to maintain this rejection, the Examiner must provide a motivation to combine references. Otherwise, the rejection must be removed.

For, these reasons Applicant respectfully requests that the rejection of claim 1 be removed and amended claim 1 be allowed.

Claims 2-14 and 18-22, depend from claim 1. Thus, claims 2-14 and 18-22, are allowable for at least the same reasons as amended claim 1. Thus, Applicant respectfully requests that the rejections of these claims be removed and claims 2-14 and 18-22 be allowed.

Amended claim 30 recites an emulsion composition that is generated by the method recited in amended claim 1. Thus, amended claim 30 is allowable for at least the same reason as amended claim 1. Thus, Applicant respectfully requests that the rejection of claim 30 be removed and amended claim 30 be allowed.

Claims 31- 43 and 47-57 depend from claim 30. Thus, claims 31-43 and 47-57 are allowable for at least the same reasons as amended claim 30. Therefore, Applicant respectfully requests that the rejection of claims 31-43 and 47-57 be removed and claims 31-43 and 47-57 be allowed.

If the Examiner has any questions regarding this response or the application in general, the Examiner may telephone undersigned at 775-586-9500.

Respectfully submitted,  
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